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Date of Approval:

AUG 1 0 2004

FREEDOM OF INFORMATION SUMMARY

SUPPLEMENTAL NEW ANIMAL DRUG APPLICATION

NADA 128-409

IVOMEC (ivermectin) Injection for Cattle and Swine

"In cattle to extend the period of persistent effect for Oesophagostomum radiatum from 14 to 28 days and for Trichostrongylus axei and Cooperia punctata from 14 to 21 days."

Sponsored by: Merial Ltd.

1. GENERAL INFORMATION:

a. Fii *\text{\text{amber:}} NADA 128-409

b. Sponsor: Merial Ltd.

3239 Satellite Blvd., Bldg. 500

Duluth, GA. 30096-4640

Drug Labeler Code: 050604

c. Established Name: Ivermectin

d. Proprietary Name: IVOMEC (ivermectin) Injection for Cattle and

Swine

e. Dosage Form: Sterile injectable solution

f. How supplied: 50 mL rubber-capped bottle, and 200, 500,

2 X 500, and 1000 mL soft collapsible packs for

use with an automatic syringe

g. How Dispensed: Over-the-counter (OTC)

h. Amount of Active Ingredients: 10 mg (1%) ivermectin/mL

i. Route of Administration: Subcutaneous

j. Species/Class: Cattle, Swine, Reindeer, American Bison. This

supplemental approval only affects cattle.

k. Recommended Dosage: Cattle: 1 mL for each 50 kg (110 lb) or 200 mcg

ivermectin of body weight per kg

1. Pharmacology Category: Antiparasitic

m. Indications: For the treatment and control of the following parasites in

cattle:

Gastrointestinal Roundworms (adults and fourth-stage larvae)

Ostertagia ostertagi (including inhibited O. ostertagi),

O. lyrata

Haemonchus placei Trichostrongylus axe T. colubriformis Cooperia oncophora

C. punctata C. pectinata Oesophagostomum radiatum
Bunostomu phlebotomum
Nematodirus helvetianus (adults only)
N. spathiger (adults only)

Lungworms (adults and fourth-stage larvae): *Dictyocaulus viviparus*

Cattle Grubs (parasitic stages):

Hypoderma bovis H. lineatum

Sucking Lice:

Linognathus vituli Haematopinus eurysternus Solenopotes capillatus

Mange Mites (scabies)

Psoroptes ovis (syn. P. communis var. bovis) Sarcoptes scabiei var. bovis

Persistent Activity:

IVOMEC Injection has been proved to effectively control infections and to protect cattle from reinfection with: Dictyocaulus viviparus for 28 days after treatment; Ostertagia ostertagi for 21 days after treatment; and Oesophagostomum radiatum, Haemonchus placei, Trichostrongylus axei, Cooperia punctata, and Cooperia oncophora for 14 days after treatment.

n. Effect of Supplement: To extend the persistent effect periods of *Oesophagostomum* radiatum from 14 to 28 days after treatment and *Cooperia punctata* and *Trichostrongylus axei* from 14 to 21 days after treatment. At this time, the labeling is being revised to reflect updated environmental information and to add the veal calf warning statement to the residue information section.

2. EFFECTIVENESS

a. Dose Characterization

Effectiveness studies were presented in the original NADA 128-409 FOI Summary approval dated February 13, 1984, establishing the recommended dosage of IVOMEC (ivermectin) Injection for Cattle and Swine for the treatment and control of internal and external parasites.

b. Substantial Evidence for Persistent Effectiveness against Endoparasites

Three studies (ASR 1505, 15110, and 15111) conducted to evaluate the persistent activity of IVOMEC (ivermectin) Injection for Cattle and Swine were previously submitted and evaluated using arithmetic means. Subsequent to the original review, the VICH guidance #90 "Effectiveness of Anthelmintics: General Recommendations VICH GL 7" was finalized on March 26, 2001. It allowed for the evaluation of parasite effectiveness studies using geometric means. For each study, the effectiveness was determined by comparing the geometric mean worm counts of the treated groups with those of an untreated control group for each parasite species present in at least six adequately infected control animals. P-values were computed for each parasite species using contrasts in a one-way analysis of variance or unequal-variance t-tests on log-transformed counts, or using Wilcoxon's rank-sum test. The period of persistent activity was defined as the time during which the effectiveness against a genus-species was >90%.

For an indication to be granted, a minimum of two studies is required that have the following characteristics: an adequate level of infection in six control animals, a statistically significant difference between treated and control animals at P<0.05, and 90% or higher efficacies using geometric means for each genus species of parasite and at each persistent effect period. If there are more than 2 studies, then the percent efficacy against a genus species of parasite from each study is added together and divided by the number of studies with that genus species of parasite. If the average is greater than or equal to 90%, then the claim may be granted. These three studies met the above criteria and were reevaluated using geometric means. The overall percent efficacies from three studies for Trichostrongylus axei and Cooperia punctata at 21 days are 93% and 90%, respectively. Two studies at 28 days for Oesophagostomum radiatum both demonstrated percent efficacy >90%. The following claims are granted for IVOMEC (ivermectin) Injection for Cattle and Swine: To extend the persistent effect periods for Oesophagostomum radiatum from 14 to 28 days and Cooperia punctata and Trichostrongylus axei from 14 to 21 days after treatment. The three studies are individually summarized below.

B.1 Study ASR 15065

1) Type of Study: Dose confirmation study in cattle with induced infections of

Page 4

gastrointestinal roundworms.

2) Investigator: Bruce N. Kunkle, D.V.M., M.S., Ph.D.

Merial Limited

Fulton, Missouri

- 3) General Design:
 - a. Purpose: To determine the period after treatment during which infections of gastrointestinal roundworms are controlled.
 - b. Animals: Thirty (30) Holstein calves (10 per group), approximately 4 to 5 months old and weighing 157 to 234 kg at the start of the study were used. All animals were treated with another anthelmintic during the acclimation period to eliminate existing infections.
 - c. Treatment Groups: There were 3 treatment groups. One group received IVOMEC (ivermectin) Injection for Cattle and Swine. The negative controls received no treatment. One group received a medication which is not pertinent to this approval and is not reported.
 - d. Infection: Infective larvae were given to each animal daily, starting on the day of treatment according to the following schedule: 1000 L₃ Trichostrongylus axei and Cooperia spp. Days 1 to 21 and 100 L₃ Oesophagostomum radiatum Days 1 to 28. There were larvae of other genus species given for various lengths of time that are not pertinent to this approval and are not reported.
 - e. Dosage Form: IVOMEC (ivermectin) Injection for Cattle and Swine, 10 mg ivermectin/mL.
 - f. Route of Administration: Subcutaneous.
 - g. Dose: 1 mL/50 kg bodyweight (200 mcg ivermectin/kg body weight) once.
 - h. Test Duration: 49 to 50 days after treatment.
 - Pertinent Variables Measured: Worm counts were determined at necropsy, 49 to 50 days after treatment, 28 to 29 days after the last Trichostrongylus axei and Cooperia spp. larvae were administered and 21 to 22 days after the last Oesophagostomum radiatum larvae were administered.
- 4) Results: There was an adequate level of infection in at least 6 control animals for the following two genus species. The results are summarized in Table 2.1:

Table 2.1 Study ASR 15065 – Percent Efficacy IVOMEC (ivermectin) Injection for Cattle and Swine 21-Day Persistent Effect Period.

	Geometric	Geometric	% Efficacy
Nematode Species	Mean in	Mean in	IVOMEC Injection
•	Controls	Treated	
Cooperia punctata	3169.8	67.9	98
Trichostrongylus axei	3826.9	83.3	98

Adverse Reactions: There were no adverse reactions in the IVOMEC (ivermectin) Injection for Cattle and Swine group.

B.2 Study ASR 15110

- 1) Type of Study: Dose confirmation study in cattle with induced infections of gastrointestinal roundworms.
- 2) Investigator: Edward G. Johnson, D.V.M. Johnson Research Parma, Idaho

3) General Design:

- a. Purpose: To determine the period after treatment during which infections of gastrointestinal roundworms are controlled.
- b. Animals: Thirty (30) Holstein male calves (24 castrated and 6 intact), approximately 4 to 12 months old and weighing 130 to 186 kg at the start of the study were used. Animals were clear of patent infections at the time of treatment.
- c. Treatment Groups: There were three groups (10 animals per group). One group received IVOMEC (ivermectin) Injection for Cattle and Swine. The negative controls received no treatment. One group received a medication which is not pertinent to this approval and is not reported.
- d. Infection: Infective larvae were given to each animal daily, starting on the day of the treatment according to the following schedule: Cooperia punctata (1000 per day for 21 days), Trichostrongylus axei (1000 per day for 21 days), and Oesophagostomum radiatum (100 per day for 28 days). There were larvae of other genus species given for various lengths of time that are not pertinent to this approval and are not reported.
- e. Dosage Form: The dosage form was IVOMEC (ivermectin) Injection for Cattle and Swine, 10 mg ivermectin/mL.

- f. Route of Administration: Subcutaneous.
- g. Dose: 1 mL/50 body weight (200 mcg ivermectin/ kg body weight) once.
- h. Test Duration: 49 days of treatment.
- i. Pertinent Variables Measured: Worm counts were determined at necropsy, 49 days after treatment, 28 days after the last *Cooperia* spp. and *Trichostrongylus axei* larvae were administered and 21 days after the last *Oesophagostomum radiatum* larvae were administered.
- 4) Results: There was an adequate level of infection in at least six control animals for *Cooperia punctata*, *Trichostrongylus axei*, and *Oesophagostomum radiatum*. Efficacy is summarized in Table 2.2:

Table 2.2 Study ASR 15110 – Percent Efficacy IVOMEC (ivermectin) Injection for Cattle and Swine 21-day or 28-day persistent effect periods

	Persistent	Geometric	Geometric	% Efficacy
Nematode Species	Effect	Mean in	Mean in	of IVOMEC
-	Period	Controls	Treated	Injection
Cooperia punctata	21	1470.7	374.4	75
Trichostrongylus axei	21	588.7	109.7	81
Oesophagostomum. radiatum	28	278.8	24.0	91

5) Adverse Reactions: There were no adverse reactions to treatment.

B.3 Study ASR 15111

- 1) Type of Study: Dose confirmation study in cattle with induced infections of gastrointestinal roundworms.
- 2) Investigator: Bruce N. Kunkle, D.V.M., M.S., Ph.D.

Merial Limited Fulton, Missouri

- 3) General Design:
 - a. Purpose: To determine the period after treatment during which infections of gastrointestinal roundworms are controlled.
 - b. Animals: Thirty (30) Holstein heifer calves, approximately 5 to 6 months old and weighing 165 to 268 kg at the start of the study were used. Animals were free of patent infections at the time of infection.
 - c. Treatment Groups: There were 3 treatment groups (10 animals per group). One group received IVOMEC (ivermectin) Injection for Cattle and Swine.

- The negative controls received no treatment. One group received a medication which was not pertinent to this approval and is not reported.
- d. Infection: Infective larvae were given to each animal daily, starting on the day of treatment, according to the following schedule: Cooperia punctata (1000 per day for 21 days), Trichostrongylus axei (1000 per day for 21 days), and Oesophagostomum radiatum (100 per day for 28 days). There were larvae of other genus species given for various lengths of time that were not pertinent to this approval and are not reported.
- e. Dosage Form: The dosage form was IVOMEC (ivermectin) Injection for Cattle and Swine, 10 mg ivermectin/mL.
- f. Route of Administration: Subcutaneous.
- g. Dose: 1 mL/50 kg body weight (200 mcg ivermectin/kg body weight) once.
- h. Test Duration: 49 days after treatment.
- i. Pertinent Variables Measured: Worm counts were determined at necropsy, 49 days after treatment, 28 days after the last *Cooperia* spp. and *Trichostrongylus axei* larvae were administered and 21 days after the last *Oesophagostomum radiatum* larvae were administered.
- 4) Results: There was an adequate level of infection in at least 6 control animals for Cooperia punctata, Trichostrongylus axei, and Oesophagostomum radiatum. Efficacy is summarized in Table 2.3:

Table 2.3. Study ASR 15111 – Percent Efficacy IVOMEC (ivermectin) Injection for Cattle and Swine 21-day or 28-day persistent effect periods

injection for Cattle and B wife 2	Persistent	Geometric	Geometric	% Efficacy
Nematode Species	Effect	Mean in	Mean in	of IVOMEC
	Period	Controls	Treated	Injection
Cooperia punctata	21	2917.8	33.5	99
Trichostrongylus axei	21	2122.8	9.9	99
Oesophagostomum radiatum	28	174.2	2.0	99

5) Adverse Reactions: There were no adverse reactions to treatment.

3. TARGET ANI SAFETY

No further target animal safety data were required from the original approval as discussed in the parent NADA 128-409 FOI summary approval dated February 13, 1984.

4. HUMAN SAFETY

No further human safety data were required from the original approval as discussed in the parent NADA 128-409 FOI summary dated February 13, 1984. There is a 35-day withdrawal period for slaughter, a withdrawal period for milk has not been established, and a withdrawal period has not been established for pre-ruminating calves.

5. AGENCY CONCLUSIONS

The data submitted in support of this supplemental NADA satisfy the requirements of section 512 of the Federal Food, Drug, and Cosmetic Act, and 21 CFR Part 514 of the implementing regulations. The data demonstrate that IVOMEC (ivermectin) Injection for Cattle and Swine when administered to cattle once at 200 mcg ivermectin/kg body weight is safe and effective for the extension of the following persistent effect periods: for *Oesophagostomum radiatum* from 14 to 28 days after treatment, and *Cooperia punctata* and *Trichostrongylus axei* from 14 to 21 days after treatment.

The following has been added to the residue information section of the labeling: "A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal".

The Agency has concluded that this product may retain over-the-counter marketing status because adequate directions for use have been written for the layperson and the conditions of use prescribed on the label are likely to be followed in practice.

In accordance with 21 CFR 514.106(b)(2)(v), this is a Category II change which did require a reevaluation of safety or effectiveness data in the parent application. Previously submitted studies were reevaluated using geometric means allowing the persistent effect period for 3 nematode species to be extended.

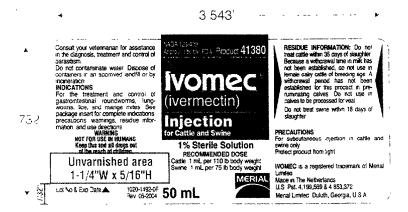
Under Section 512(c)(2)(F)(iii) of the Federal Food, Drug, and Cosmetic Act, this approval qualifies for THREE years of marketing exclusivity beginning on the date of approval. The three years of marketing exclusivity applies only to the extension of the 3 already approved persistent effect indications listed above. Three studies were conducted to provide substantial evidence for these supplemental indications.

No patent information was submitted with this application.

6. ATTACHMENTS

Facsimile Labeling is attached as indicated below:

- A. 50, 200, and 500 mL container label and box carton
- B. 2 X 500 mL box carton
- C. 1000 mL base label, outsert, and box carton
- D. Package insert for 50, 200, and 500 mL container sizes.



MERIAL GLOBAL PACKAGING TECHNOLOGY

Client: Ruminant Animal Global Enterprise
Originator: B. Somerville

Country: USA

Brand: Ivomec Cattle & Swine

Project: effective treatment and control facs

disposal statement

Component Description: Syringe Label

Graphic Designer: Patricia Greene

Telephone #: 678-638-3302

Date: 4 May 2004

Revision - Date: A-03/05/04 Note Inis revision B-03/22/04 nistory is for internal GPT uniposes <u>ONLY</u>

Component # 1020-1492-0F

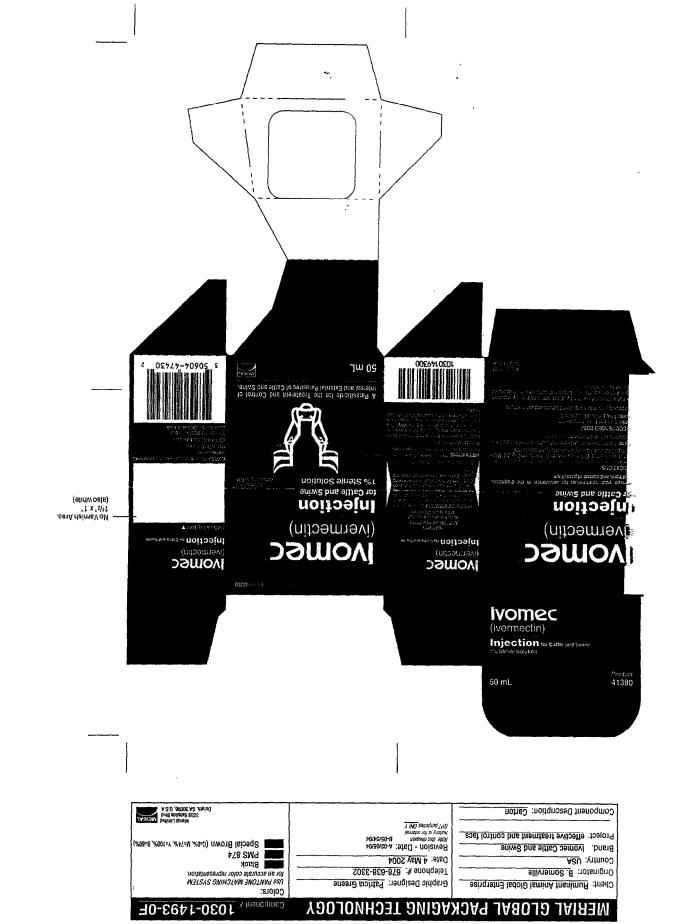
Colors:

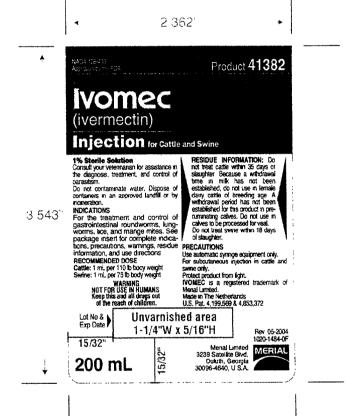
Use PANTONE MATCHING SYSTEM for an accurate color representation

PMS 874

Special Brown (C=0%, M=74%, Y=100% B=80°

Merial Limited 3239 Satellite Blvd Duluth, GA 30096, U S A





(Note: Magenta lines do NOT print)

MERIAL GLOBAL PACKAGING TECHNOLOGY **Client: Ruminant Animal Global Enterprise** Graphic Designer: Patricia Greene Telephone #: 678-638-3302 Originator: B. Somerville Country: USA Date: 4 May 2004 Revision - Date: A-03/05/04 Brand: Ivomec Cattle and Swine Note this revision B-03/22/04 Project: effective treatment and control facs history is for internal C-05/04/04 GPT purposes ONLY disposal statement Component Description: Label

Component # 1020-1484-0F

Colors:

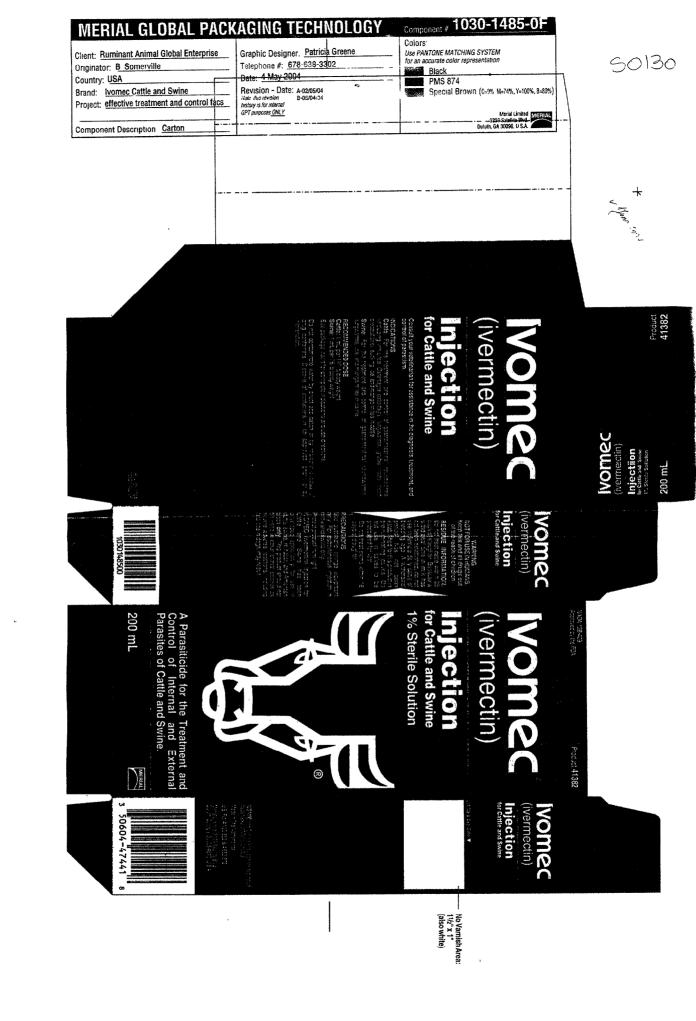
Use PANTONE MATCHING SYSTEM for an accurate color representation

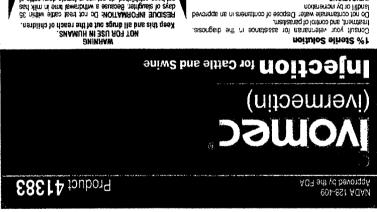
PMS 874

Special Brown (C=0%, M=74%, Y=100%, B=80%)

For Merial logo, process should match 3292 for the top of the logo







RESULDE INFORMATION, Do not interest an entitlement of confliction of the confliction of WARNING WOT FOR USE IN HUMANS. Keep this and all drugs out of the reach of children.

Use automatic sympe equipment only For subcutaneous injection in cattle and swine only protect product from light. PRECAUTIONS Do not treat swine within 18 days of slaughter

VOMEC is a registered trademark of Menal Limited Made in The Neitherlands U.S. Pat. 4, 199,569 & 4,863,572

Menal Limited State Stat

200 mg

Swine: 1 ml bet 75 lb body weight RECOMMENDED DOSE

Lot No & Exp Date

MERIAL GLOBAL PACKAGING TECHNOLOGY

(Note: Magenta lines do NOT print)

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InanoqmoD 1020-1486-0F

for an accurate color representation USE PANTONE MATCHING SYSTEM

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Duluth, GA 30096, U.S.A.

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Telephone #: 678-638-3302

Graphic Designer: Patricia Greene

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See package insert br complete indications, precautions, warnings, residue information, and use directors

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Date: 4 May 2004

disposal statement Project: effective treatment and control facs

Client: Ruminant Animal Global Enterprise

Component Description: Label

Brand: Ivomec Cattle and Swine

Originator: B. Somerville

Country: USA

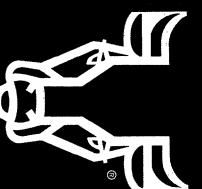
for Cattle and Swine jection

WARNING
NOTFORUSE IN HUMANS.
Keep this and all drugs out
of the reach of children.

1% Sterile Solution

ittle and Swine

RESIDUE INFORMATION:



equipment injection in

ivermectin ction

No Varnish Area: 1½"x 1" (also white)

njection r Cattle and Swine

Product 41383

ivermectir

Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. ittle and Swine ection

vine: For the treatment and control of strointestinal roundworms, lungworms lungworms, sucking lice, control of including

RECOMMENDED DOSE
Cattle: 1 mL per 110 lb body weigh
Swine: 1 mL per 75 lb body weight ice, and mange mites in swine package insert for complete indications use directions.

Do not contaminate water by application or by improper disposal o containers. Dispose of containers approved landfill or by incineration.

500 mL

MERIAL



-**@**-

Injection for Cattle and Swine 1% Sterile Solution (ivermectin)

Rev. 05:2004 1000:1487-0F

A Parasiticide for the Treatment and Control of Internal and External Parasites of Cattle and Swine.

Logo and rai Limited.

Client Ruminant Animal Global Enterprise Originator Bruce Somerville

Graphic Besigner Patricia Greene Telephone # 678-638-3302 Date 4 May 2004 Revision - Date Aoureou Note his recour 8 050404 independent 8 050404 (311, papers 041)

Brand Vomec Cattle and Swine Project effective treatment and control facs

Country USA

Component Description Carton

Colors

Lose PANTORE MATCHAIT SYSTEM

To an excurate color representative o

BASE STA

PANS STA

Special Brown (c.e.h.M.14t., 1:10%, p.esh.)

Component - 1030-1488-0F

Ivomec (ivermectin)

Injection
for Cattle and Swine
1% Sterile Solution

2 x 500 mL

For Merial logo, process should match 3292 for the top of the log-and 326 for the bottom of los tog-

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Product **41383**

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Vome (ivermectin)

Froduct **41383**

(ivermectin) Injection for Cattle and Swine

Ivermectin

Injection for Cattle and Swine

Injection

for Cattle and Swine

No Varnish Area 1½" x 1* (also white)

for Cattle and Swine njection

WARNING NOT FOR USE IN HUMANS. Keep this and all drugs out of the reach of children.

RESIDUE INFORMATION: Do

1% Sterile Solution

Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. roundworms including inhibited Ostertagia gatertagi, fungworms, grups (note insert precautions), gucking lice, and mange miles in cattle. Cattle: For the treatment and control of gastroit INDICATIONS

Swine: For the treatment and control of gastrointestinal roundworms lungworms, lice, and mange mites in swine.

RECOMMENDED DOSE Cattle: 1 mL per 110 ib body weight Swine: 1 mL per 75 ib body weight





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PRECAUTIONS

 $2 \times 500 \text{ mL}$









1000 mL Braud lyomec Cattle and Swine Project Injection 500mL (Menalization) Ouquiator Tanyja Porcha Component Description Carton

Chent Ruminant Animal Global Enterprise

Graphic Designer Chandra Butmet Telephone # 678-638-3261 Date 17 July 2003

Colors
'I * PANTONE WATCHING SYSTEM
'IV TO ACCURATE COST OF RESPONDENCE.

Black SEC. PMS 874 Special Brown (60% Marks yalton 858%)

Revision - Date A. 047003 B-05/1803 C-07/1703

Barra Lembal 3239 Sayuma Bad Dulan GA 30096 U.S.A.

ivermectin) (A)

for Cattle and Swine Injection

Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.

NIDICATIONS

Cattle: For the treatment and control of gestrontestinal roundworms (including inhibited gestrontestinal roundworms (including inhibited operations) successful lice, and mange rites in cattle pregautions), successful lice, and mange rites in cattle.

RECOMMENDED DOSE
Cattle: 1 mt. per 110 ib body weight
Swine: 1 mt. per 73 ib tody weight
See package "sen for complete indications and use
directions.

Do not contaminate water by direct application or by improper disposal of drug containers. Dispose of containers in an approved landful or by incineration.

(ivermectin) R

Injection for Cattle and Swine

WARNING NOTFOR USE IN HUMANS. Keep this and all drugs out of the reach of children.

RESIDUE INFORMATION: Do not freat callle within S5 days of starphter, Because a

o not freat swine within 18 ys of staughter.

PRECAUTIONS
Use automatic syringe equipment
only. For subcutaneous injection in
catile and swine only.
Protect product from light.

NOMEC (vermedth) Injection for Cattle and Some has been derelogies specifically for use in cattle, styling, remotes and American bison anny. This product should not be used in other annial species as severe activese near vere adverse reactions. alities in dogs, may result

Product 41384

ivermectin)

Injection for Cattle and Swine (ivermectin)

Nomec





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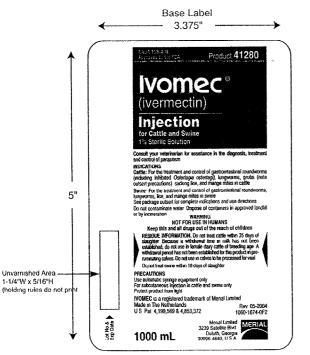


1000 mL

A Parasiticide for the Treatment and Control of Internal and External Parasites of Cattle and Swine.







Momes 4 (ivermectin) Injection for Cattle and Swepe

MIRRODUCTION

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INUNEST: Insection is a clear, red-spectrum, surrily compared to social control of the sevence of t NODE OF ACTION

MODE OF ACTION
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aco (cubes).

The margin of salety for compounds of this class is attributable to the fact that mammats do not have guitamete-gated chloride channels, the macrocyclic actions have a low affinity for other mammatan figurid-gated chloride channels and they do not readly cross the blood-divan barner.

INDICATIONS
Cattle, IVOMEC (ivermedin) injection is indicated for the effective treatment and control of the following harmful species of gestrontestrial roundworms, bindworms, onlibs, suctoria lice, and mange miles in cattle Octaviana exteriaci finducino intribited O esteriaci

Lungworms (adults and fourth stage larvae) Dictyocautus vivipanus

Cattle Grubs (parasisc stages)

Sucking Lice Linognathus visus Haematopinus eurystemi Solenopores capitatus

Mites (scables) Psoroples ovis (syn. P communis var bovis) Sarooples scabel var bovis

Siftingness security or convi-prentation Auditor (injection has been proved to effectively control (NOMEC (invernetion) injection has been proved to effectively control nections and so protect cattle from renfection with Dictycounts inviprans and Ceophigosterum markatum for 26 days after treatment, Osterlago costengo, Transcristorgues and and Coopera punctals for 21 days after treatment, Hasmonothus placel and Coopera crocophora for 14 days after treatment.

Sprine, IVDMEC Injection is indicated for the effective treatment and control of the following harmful spaces of gastrointestinal roundworms, lungworms, fice, and menge mites in swine Gastrointestinal Roundworms

GestroIntestinal Roundworms Lage roundworm. Access sum-daulis and fourth-stage larvae) Red stomach worm, Hypostrongyl (adults and fourth-stage larvae) Nodular worm, Cesophiagostorii (adults and fourth-stage larvae) Threadworm, Strongyloides rares

Somstile Boundworm Larvee.

Stresslic Boundworm Strongylodes ransom/(somatic larvee)
Sows must be treated at least seven days before famowing to prevent infection in pigliets.

Merastrongylus spp (adults)

Lice: Haematopinus sus

Mange Mites Sarcopres scabler var suis

NOMEC (warmedra) Irraction for Catile and Swine has been developed specifically for use in catile, swine, rendeer, and Amencian bison only. This product should not be used in other animal species as severe adverse reactions, including fallatities in dogs, may result.

When to Treat Cattle with Grubs IVOMEC effectively controls all star

When to Treat Calle with crubs NOMEC effective control at dispose of called guido. However, proper branch of treatment is reportant. For most effective results, called should be beautiful as one prosable after the most of the line bit (wheath bit) the beautiful as one a prosable after the most of the line bit (wheath bit) when these guido are in vivial areas may cause undestable food-passes when these guido are in vivial areas may cause undestable food-passes when these guido are in vivial areas may cause undestable food-passes when it is in the listue commonly the couplages (guida) may cause when it is in the listue commonly the couplages (guida) may cause when it is in the listue commonly the couplages (guida) may cause when it is in the listue commonly the couplages (guida) may cause when it is in the listue commonly to a couplage (guida) in the couplage (guida) in the case of couplage

Cettle treated with IVOMEC after the end of the heel fly season may be retreated with IVOMEC during the writer for internal parasities, mange mises, or suching lice willout duriger of groth-related reactions. A planned parasite control for recommended.

persons cause program encomerons. Emirhomentals Sales in Emirhomentals in Em

As with other avermectors, reemector is excelled in the dung of treated annulas and can mithat the reproduction and growth of pest and beneficial resects that use dung as a source of lood and for reproduction. The respectables and duration of such effocts are sponce and life cycle spoofs. When used according to lately directors, the product is not expected to have an arbeitse impact on productions of Jung-dependent needs. HOW SUPPLIED

OMEC (warmedin) kyertion for Cattle and Swine is available in Swi dy-to-use pack sizes

The SO mt. pack is a multiple-dose, rubber-capped bottle. Each bottle contains sufficient solution to treat 10 head of 550 to (250 kg) cattle or 100

contains softioent sottoon to real or near or over a contain, head of 38 th (173 kg) swine. The 200 mt, pack is a soft, collepshie pack designed for use with automatic symple equipment. Each pock contains sufficient solution to treat 40 head of 550 th (250 kg) cafile or 400 head of 38 th (17.3 kg).

The 500 mL pack is a soft, collapsible pack designed for use with automatic syringe equipment. Each pack contains sufficient solution to lited 100 head of 550 tb (250 kg) cattle or 1000 head of 38 tb (17.3 kg)

When using the 1000 ml. pack size, use only automatic syringe DOSAGE.

GRIBE, IVDMEC Injection should be given only by subcutaneous injection under the floote skin in fund of or behind the shoulder at the recommended loose level of 200 mg of evernectine per klogram of body weight. Each mt. of IVDMEC (hearment) contains 10 mg of evernectine subcurrent of the property of the property on the property of the prop Use static equipment and santize the injection site by applying a suitable disinfectant. Clean properly disinfected needles should be used to reduce the potential for injection site infections.

Dose Volume (ml.)

Dose Volume (mL)

No special handling or protective clothing is piecessary

In a special manufage of potentive colling is necessary.

Some: NOMEC lisposon is to be given subcutaneously in the neck.

Avirula's should be appropriately restanded to achieve the proper route
of administration. Use of a 16 or 18 gauge recede in supposed or
soms and boars white a 16 or 20 gauge recede in special per appropriate
for young animals. Inject under the stori, immediately behalf the ear
(see Businston).

2 292 Panel 4



When using the 1000 rtl. pack size, use only automatic syringe equipment. As with any special in, startle equipment should be used. The impaction site should be desired and destructed with adortool between mexicn. The nutber storper should also be districted with adortool to prevent containmant on the contents. All and shrasened pan reactions may be seen in some swine following subcultaneous administration.

Recommended Treatment Program
Swine, At the time of inhaling any parasite control program, it is
unportant to treat all breeding animals in the herd After the initial
treatment, use IVOMEC (wenned in) Injection regularly as follows

oraniem, use in which continuously prepared in gouldary as browns
BRIELDINGA NINHAL3
Sows Treat prior to January, prelierably 7-14 days before, to
minutine indeation of pupilets
Gibs Treat 7-14 days point to breading
Treat 7-14 days prior to lamburery
Boars
Frequency and need for treatments are dependent upon

exposure Treat at least two times a year

FEEDER PIGS

(Weaners/Growers/Finishers)
All weaner/feeder pigs should be treated before placement in clean

Pigs exposed to contaminated soil or pasture may need retreatment

NOTE.

(I) NOMEC Injection has a persistent drug level sufficient to control mate micistations procedure to egg to adult life cycle. However, since the nermedia effect is not immediate, care guist be taken to prevent.

Product **41280** 🦃

Protect product from light.

renfestation from exposure to unitvalled enimats or confiamnated facilities. Generally, pigs should not be moved to clean quisties or exposed to uninfested pigs for approximately one week after treatment. Some should be treated at least one week before farrowing to manage transfer of milites to newbon palty pigs. (2) Louse eggs are unalkeded by IVOXIEOB (Nem schri) Injection and may require up to three weeks to hatch, Louse infestations developing from hatching eggs may require retreatment.

(3) Consult a vetennanan for aid in time plagnoss and control of internal and external parasites of swine.

Special Minor Use
Remotes: For the treatment and control of wartles (Cedemagene Island) in rendeer, med. 200 morograms teamed in per httpgram of body weight, subcutaneously Follow use directions for cattle as described under ADMINISTRATION.

American Bison. For the treatment and control of youts (hypoderma boxis) in American bason, meet 200 micrograms freemechin per kilogram of body weight, subcutanerusly follow use directions for cattle as described under ADMRHSTRATION.

RESIDUE INFORMATION: Do not treat rendeer or American bloom within 8 weeks (56 days) of staughter

WARNING NOT FOR USE IN HUMANS. Keep this and all drugs out of the reach of children

The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information. To report adverse effects, obtain an MSDS or for assistance, contact Merial at 1-888-637-4251

RESIDUE INFORMATION Do not treat cattle within 35 days of staughter Because a weindermal time in milk has not been established do not use in famale dary cattle of breeding age. A withdrawal period has not been established for this product in pre-numerating calves. Do not use in calves to be processed for yeal. Do not treat swine within 18 days of slaughte-

PRECAUTIONS

5 016"

Transitory discomilors has been observed in some cattle following because of the control of the contro

size reaction.
Use sterilide equipment and santize the impedion like by applying a suitable disnifedant. Clean, properly disnifeded recides should be used to reduce the potential for injection size infections. Observe catifie for response for response size response.

Observe catifie for response for reactions. Response representations may be due to clostrodial infection and should be appressively treated with appropriate arithmetics. If injection site infections are suspected, consult your veternisman.

The rundout is not for intravenous or intrameronism see

The 2x 500 mL includes two 500 mL packs with sufficient solution to treat 200 head of 550 to (250 kg) cattle or 2000 head of 38 to $\{17.8\,\mathrm{kg}\}$ swine The 1000 mL is a soft, collapsible pack designed for use with automatic syringe equipment. Each pack contains sufficient solution to treat 200 head of 550 fb (250 kg) cattle or 2000 head of 38 fb (17.3 kg) swine.

2 403" Panel 3

Body Weight (lb)

220

330

550

660

880

Body Weight (fb)

450

ADMINISTRATION

CIMIE: IVONEC (Wermachn) injection is to be given subcutaneously
only, to reduce risk of potentially fatal clostridial infection of the
injection site. Animals should be appropriately restrained to achieve the
proper route of administration. Use of a 16-gauge 172 to 341 needle is
suggested. Inject under the bose storn in front of or behind the shoulde
(see distration).

Switte, IVOMEC Injection should be given only by subcutaneous ejection in the neck of swine at the recommended close level of 300 mgg of mermedin per kilogram (22 lb) of body weight. Each mt. of IVOMEC contains 10 mg of Ivermedin, sufficient to treat 75 to of body weight.

DOSAGE

Breeding Arumals (Sows, Gills, and

ADMINISTRATION

Menal Limited, a company limited by shares registered in England and Wales (egistered number 3332751) with a registered office at PO fice 327, and fing the Number of State (1998) and State (199

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US Pat 4.199.569 8 4 853 372

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lvomec® (ivermectin) Iniection for Cattle and Swine 1% Sterile Solution A Parasiticide for the Treatment and Control of Internal and External Parasites of Cattle and Swine





Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

	rru.	individual notify in the next. Animals should be expropristely restrained to active the proper made of entirestation (as et a 15 or 15-page media is suggested for sink some sind boars, white en 18- or 20-page needs may be expropriate for young animals, sylect under the site in moduliny behind the ear (see Bustration).
	NADA 108-00 According the FDA	the skin, immediately behind the ear (see Businesson)
	ivomes. 2 far	2
	(ivermectin) (injection	
į	for Cattle and Swine 1% Stanie Solution	When 6 My the 200 mL 500 mL or 1000 mL pack size, use only
	A Parasiticide for the Treatment and Control of	When h m / the GOD oil., GOD mil., speck stan, sald only section. I springs account. As with a say Specials, stems copy section. I springs account. As with a say Specials, stems account manual section. The registers in should be calculated and state but account to the said of the s
	Consult your veterinarian for assistance in the disgress,	contents. Mid and transient pain reactions may be seen in some swine following subcusements administration.
	bearment and control of personation. In CALCED Removation is an injection potabilistic for carbs and state. One benefitime does indicately make and controlled controlled to the controlled controlled to the controlled co	Swings At the time of killishing any perastic control program, it is important to treat at breading swimps in the hard. After the milial treatment, use (VOMEC Selection requisity as follows:
i	cattle and swine gastrointestinal roundworms (including whithcod Ostertages ordering) in castle), lungworms, grubs, sucking lice, and manage makes of cattle and gastrointestinal roundworms, lungworms.	BREEDING ANMALS Sown. Trest prior to tarrowing, pre/arably 7-14 days before to minute interition of polets.
	see and mange miles of swine Described and carried or the same and carried or the same and carried carried carried is a novel chemical entity the convenience, broad-spectrum efficacy, and safety margin make the convenience, broad-spectrum efficacy, and safety margin make	Gieta, Treat 7-14 days prior to breeding. Treat 7-14 days prior to familyeing Boars: Frequency and need for treasments are dependent
	PRODUCT DESCRIPTION	upon Treat at least two times a year FEEDER PIGS
	PRODUCT DESCRIPTION Interruction is defined from the avermection, a turney of potent, broad- spectrum authorisation agents isolated from farmerosation of Sheptomyces are matter.	All wearner-feeder pigs should be treated before placement in clean
	Shapicinyosa arematika. NUMEO Selector is a clear ready-to-use, starte solution containing to humanical, 40% glycare forms, and purposes glycal, call all USA, NUMEO Selector forms, and purposes glycal call and USA, NUMEO Selector more called design on the cold weight in called select glycal part of the ready of the called select glycal part of the ready of the called selector glycal part of the ready of called the called selector glycal part of the ready of the called	Pigs exposed to contaminated soil or pasture may need retreatment a miniscion occurs. NOTE:
	when given subcutaneously at the rate of 1 mil/10 is (50 leg) in Swine, SVOMEC injection is formulated to deliver the recommended some level of 300 more hydrocontribugions body weight when given	(1) NOMEC injection has a perassant anua systema to control the intestations thoughout the egg is adult tie cycle. However, since the intermedia ellect is not immediate, care must be taken to accept the intermediate of the control of the contr
	subcutaneously in the nack at the rate of 1 ml, per 75 to (85 kg) MODE OF ACTION beginned in its in member of the macrocyclic lactone class of	consuminated facilities. Generally, play should not be moved to clean custominated facilities. Generally, play should not be moved to clean customs or exposed to unintested play for inprovincially one week when treatment Group should he treated at least oney week before
	endecicides which have a unique mode of action. Compounds of the class bind, splectively and with high affinity to glutamate-gased chooke for channels which coust in inventionate news and invention	terrowing to minimize transfer of mass to newborn beby page. (2) Louse eage are unaffected by NOMEC injection and may require (2) Louse eage are unaffected by NOMEC injection and may require
ļ ļ	abortaneously hell incide the mail of int, por TS (CIR Sign) abortion of the mail of the mail of int, por TS (CIR Sign) homesch is a mailtening of the mailtening of the composition of close to the close but of mailtening and with position of a distinct composition of the close but of mailtening and with position of a distinct composition of the close close of the clo	NOTE: (1) NOMEC tripotion has a persistent data junt stafficiant to control (1) NOMEC tripotion has a persistent data junt stafficiant to control (1) NOMEC tripotion design in our immediate, user may be received, serior also supported professional control (1) Nomec tripotion design in our persistent design in the stafficiant control (1) Nomec tripotion profession design in the stafficiant control (1) Nomec tripotion profession design in the stafficiant control (1) Nomec tripotion design regulation researched (1) Nomec tripotion design regulation researched (1) Nomec tripotion design regulation researched (1) Nomec tripotion design regulation design in the stafficiant (1) Nomec tripotion design regulation design in the stafficiant (1) Nomec tripotion design in the staff
1	change of the such as those gasted by the neurotransmitter generals and according to the neurotransmitter generals and change of the change is apply table to the	Special Minor Use Special Minor Use Seriolest: For the reservoir and corried of varieties (Oedensignan sameds in emisses, inject 200 micrograms harmedin per kliogram of cody weight, subcustaneously. Follow use directions for cella as described under ADMINISTRATION.
į	general-aminobulint and (GABA). The many of safety for computed of this class is ambusible to the fact that manness do not have guitamise-gated chloride channels, the manuscrybib bosones have a few effects or owner mannessian spandigated chloride channels and they do not reachly cross the boson-brain borner.	body weight subcutaneously Follow use directions for case as described under ADMINISTRATION. American Blanc. For the treatment and control of grubs
	blood-brain burster NINDCATIONS CHIEFE BOOLECT tourning is originated for the infective leastment and	described under ADMINISTRATION. American Elsop, For the insument and control of grubs (Hypoderma bowls) in American boson laiect 200 micrograms (American be ideogram of body weight, subcustancians). Follow use directions for cattle as described under ADMINISTRATIOM.
	INDICATIONS Catility INDIREC Injection is indicated for the effective treatment and corrigo of the tolorwing harmal species of gastrointestinal roundworms, lungworms, grubs, sucking lice, and manage writes in catile.	RESIDUE INFORMATION. DO NO DOM TENDOS O
	conductors, programs, grues, autoriginal, au marge mare a carte. Castrointeetinel Rounderorms (adults and fourth-stage lande) Custerage ossersof (actualing inhibited C. osterlag) O lystic Hammonicus blace	American bason within 8 websits the carrier or security in MOT FOR USE IN HIMMANN. Keep this and all drugs can't the reach of children. The Material Salety Data Sheet (MSCS) portains more desired compational addrey information. If word and writes eached, obtain an MSCS or for assistance, contact Metals or 1-859-937-4251.
	Trichostrongytus axer	occupational safety information to report doverse effects, obtain an MSCS or for assistance, contact Merial of 1-869-937-4251
1	T contentions Cooperie procphore C precisis C precisis C septimate Committee Committee Committee Committee Committee Committee Remotering philodoximan	MSIDS of the Sessionaria, contract values or industrial within 0.5 RESIDSUE HEFOCHMAINTON Do not been castle which not observed the sessionaria of the product in pre-unmenting calves. Do not use in calve to be processed of viet.
i	Runostorium philocolomum Nematodinus hehvelarus (adults orby) N. sushiiser (salats orby)	established for this product in pre-rumnating calves. Do not use in calves to be processed for yest. Do not treat swine within 18 days of staughter.
	Districture (econs per controlle)	PRECAUTIONS TRANSPORTED THE SECTION OF SERVICE AND THE SECTION OF S
	Cattle Grubs (parasitic stages) Hypoderne bovis H, lineaturn Studiese Line	PRECAUTIONS Institut (Scannish has been observed in some caste beforing spousaneous administration A low moderne of soft listue severing size has highered see has been observed. These reactions have disappeated without resistance. For caste, divide doses greater than 10 mt. believen two listicous has to include outsidered discontinuor or of mt. believen two listicous has to include outsidered discontinuor or
	Suciding Line: Linographius vituf Hashinalophus eurysiemus Solenopoles capitatus Millas (capitatus Millas (capitatus)	to mu person the region and sanding the injection size by applying a Use stacks equipment and sanding the injection size by applying a
20"	Parmples over (syn. P commune visit boins)	the reaction. Use state equipment and sensitive the injection ofte by applying a extractive decreation. Other, properly distincted modeller about the text of a recture of the protection for registron and extending on Chairman casts for rigidation are instances from the other to cloself-dail infection and should be appreciatively belief with appropriates are about the injection and infection are suspected, consider your vertices must be extended as a suspected, consider your vertices must be extended as the consideration of the contraction of the contraction of the consideration of the contraction of the contraction of the contraction of the contraction of contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction
	Description Activity Persistent Activity VONEC injection to been proved to effectively control infections and to protein from neighborn with Despotations wheather and and to protein the model and not of the persistent wheather and control of the persistent of the despotation of the persistent of the persistent of the despotation of the persistent of th	appropriate antibiotics, if injection the injections are suspected, consist your voterhanan. This product is not for intravenous or intramuscular use.
ļ		Protect product from Eght. Protect product from Eght. **COLOR part \$0 10 50 50 50 50 50 50 50 50 50 50 50 50 50
	days after treatment. Senting POMIC tripication is indicated for the effective treatment and control of the information harmful species of quantomisestimal mandament. Languarem, too and mange makes in senter. Gestrointestimal Roundsycomet.	Protect product from fight. The product from fight and product and product and product and product and product as severe acceptant, including statistics in dogs, may result.
İ	Gestoring Engineers and Congress of Congre	service observes reactions, faculty to indeless in force, many man. Where is Treat that with during the Contract of the Contra
	Georgeometricam (normanismostram): Large security, Arcelos security (solds and Courth-deap security) (solds and South-deap security) (solds and bosth-deap sec	By (worthis By) session. Destination of Hypotherms luries (cattle grade) at the period when these grades are a visit arous may cause undestinates host-parable reactions including the possibility of
	(adults and fourth-stage larvas) Threcharm, Strong-ladder rameon/ (adults) Romalio Residentes Larvasir	Intelliges. (Cling: Physicientral Empetitum White I is 41 The Tesson surrounding the exchangus (guillet) may make selevation and bload; killing H bovis where it is in the vertebral const may cause staggering.
	Bosselic Rotenchevore Levree' Threadware, Shoopylootie zerscore (somado levree) Sovie must be treaded at least seven days before larrowing to prevent infection in piglietis.	NOMEC, but can occur with any excossful treatment of pubs. Calls should be treated either before or shar these stopes of prub that the proper time.
1	Lungworms: Afetasirong-kur scc. (adults)	for treatment. Catife treated with IVOMEC after the exit of the heality season may continue treated with IVOMEC after the exit of the heality season may be a
	Lice Hearnetcownst State Mange Mittes Secretors scatterives state	Castle treated with IVOMEC after the end of the healify season may be retreated with IVOMEC during the winter for internal parables, mange make, or suching the without danger of grub-related reactions. A planned parable control program to recommended. Enulational Related out of the program to recommended.
1	Secreptes administration in Child Dis green only by subchannous parties. Providing Inspation in Child Dis green only by subchannous parties. Providing Inspation in Child Dis green only by subchannous encommended date level of DO ongo of Americania parties staggers of body weight. Each mit, of InValid Constant of thing of Inframedia, audication to were 10 to (Did page only-weight (maximum of int., per injection field). Body Weight (b) Does Volume (mit.)	reaction. A planned parasite context program is recommended. Environmental Selecty. Studies indicate that when hermodin comes in condex visit and it, made yet only by that to the sold and selection of the condex visit and programs. But not present water most floor lead to so to order lates, entered no process. Due not contained water by visit against propriate designated of long containers. Despots of containers in an 4x with more incommental, beginning it is consistent on the 4x with other conventable. Numberoid is secreted in the dury of
	recommended dose level of 200 mag of hermachin per laboration to body weight. Each mit. of IVOMEC contains 19 mg of hermachin, authorem to even 110 to (50 kg) of body weight (maximum 10 m), per	organisms. Do not paint water runoll from sed lots to enter takes, streams or ponds. Do not confaminate water by direct applicators or by improper disposal of drug containers. Dispose of confamers in an
	Body Weight (fb) Does Volume (mL)	approved breafts on by increasion. As with other permanents, learning in secreted in the dung of beeffed controlled in the dung of beeffed controlled in the dung of the secretary of the dung of the dung of the secretarion. The majoritation of controlled on the secretarion of the majoritation of controlled on the secretary of the majoritation of controlled on the secretary of t
	300 3 440 4 550 5	reproduction. The magnitude and duration of such effects are species and Hé-cycle specific. When used according to label describes the context is not expected to have an adverse model on
	680 6 770 7	populations of dung-dependent insects. HOW SUPPLIED FOR and Swinz is available in five ready-to-
	860 6 980 9 1100 10	use pack states. The 50 ml, pack is a multiple-douse, nation-capped bottle. Each confe contains autificiant solution to treat to head of 550 th 650 kg; and cartle or 100 bottle of 350 bit (136 kg; and solution). The 200 ml, pack is a soll, collegatible pack contains stational solution to treat 40 head of 550 th 250 kg; cestion or 400 head of 350 th 173 kg; and the 400 kg; and the
	Syding: IVCNAFC Injection should be given only by subcutaneous injection in the neck of swins at the recommended dose level of 300 may be remined by per ladgrame (2.2 b) of body weight Each mit, of #VCNAFC contains 10 mg of hermecter, authorise to treat 75 b of local contains 10 mg of hermecter, authorise to treat 75 b of local contains 10 mg of hermecter, authorise to treat 75 b of local contains 10 mg of hermecter, authorise to treat 75 b of local contains 10 mg of hermecter, authorise to treat 75 b of local contains 10 mg of hermecter.	caste or 100 head of 38 ib (17.3 kg) swice. The 200 mL pack is a solt, collapsible pack designed for use with religionship pack dentains stafficient solution.
	IVCALEC contains 10 mg of hermoctin, authorish to treat 75 to of body weight Body Weight (b) Dose Volume (ml.)	to treat 40 head of 550 to (250 kg) castle or 400 head of 38 to (17.3 kg) switce The 500 mil. pack is a soft, collapsible pack designed for use with
	Growing Pigs 19 1/4 28 1/2	paster The 500 mL pack is a soft, collapsible pack designed for use with automatic syrings equipment. Each pack contains sufficent solution or next 100 heats of 500 to (200 tag) castle or 1000 heat of 30 to (173 lag) senter.
	75 1 150 2 Breeding Animals 225 3 (Sows, Gills, and 300 4	treat 200 head of 550 ib (250 kg) callin or 2000 head of 36 tb (17 3 kg)
	Board) 375 5	awhos. The 1000 mL is a sort, collapsible pack designed for use with automatic sysings equipment. Each pack contains sufficient solution to least 200 hadd of 550 to (250 kg) cattle or 2000 head of 38 to (17.3 kg) wither
	ADMINISTRATION Section is to be given subustaneously only, to cating revokes in special posterior and an approximate of the revokes risk of potentially state described intentions of the rejection site. Arims should be approximately rejected to exhibit the properties of administration, the of a feetings, 1/2 to 347 roote is supposed, their under the soon ofth in treat of or behind the shouldon (see Resization).	(1000 Mg) amount
1	injection site. Animals should be appropriately restrained to achieve the proper route of administration. Use of a 16-pauge, 1/2 to 3/4" needle is supposted. Inject under the loans skin in tront of or behind	
	the stroubler (see Bustration).	
		NYOMEC, Cable Head Logo and Pig Head Logo are registered tradements of Mortal Landar.
	VAT.	Madel Limited, a company Smited by shares registered in England and Weise (registered number 2007/51) with a registered citize or PO Box 227, Sandringhers House, Sandringhers America, Health Stathwest Park, Health Dates CM19 STO (Fulfack and Compositions in Deservers, USA on Mored Lides.)
	William Friend and Story 2000 the 1000 the bears and one card and card	Made in The Hatherlands. U.S. Pat. 4,199.500 B 4,050.372
	symple equipment. Use storie supplement and santize the injection site by applying a suitable disinfectant. Clean, properly distributed needles should be used to reduce the potential for injection able infections. No appeals handling or protective clothing is necessary.	U.S. Per. 4 195 500 1 4 655 372 Cooping in 5 2003 Moural Limited All Rights Reserved. 1005 Let 0.00 D.A.R., Georgia 1005 Let 0.00 Scool-465 L.S.A.
	No special handling or protective clothing is necessary	10991401-09 3130-041115.4
•	Front	Back

MERIAL GLOBAL PACK	AGING TECHNOLOGY	Charge et a 1050-1491-0F
Caerr Rummant Animal Global Enterprise Originator Bruce Somerville Country USA Brand I vomes Cattle & Swine Injection Project PA statement Compressed Theorems Insert	Graphic Designer Patricla Greene Telephone #, 578-638-3302 Date 25 September 2003 Revision - Date A - 041853 Advira Binnes C - 047253 GPT Joseph C - 047253 GPT JOSEPH C - 047253	Colors. See PAINTONE MATIONING SYSTEM for an accurate color representation Black Maria Land of Presentation for the Color of the Col